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ABSTRACT

This report investigates the ways bottle feeding of infants is promoted by multinational corporations. Data were obtained from the following: (1) a survey of available infant food advertising in newspapers and magazines from developing countries: (2) a study of some interrelationships between the health professions and infant food companies, including a study of advertising in professional journals, and an analysis of educational publications written by infant food companies for distribution to the public, largely via the health professional: and (3) a compilation of data on multinational companies which market infant foods. Findings are extensively discussed in the hopes that they will be of use to those concerned with the problem of commercial infant food advertising and promotion in developing countries. Appendix One presents infant food advertisments from publications in developing countries directed toward the lay public. Appendix Two reproduces infant food advertisements from journals for health professionals. Appendix Three provides information about world manufacturers of processed diary products used for infant feeding, including parent corporation, subsidaries, infant food marketed, areas of heaviest marketing, addresses, and miscellaneous information. (Author/RH)

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Cornell University
Program on International Nutrition
and Development Policy

THE PROMOTION OF BOTTLE FEEDING BY MULTINATIONAL CORPORATIONS: HOW ADVERTISING AND THE HEALTH PROFESSIONS HAVE CONTRIBUTED

by Ted Greiner

Cornell International Nutrition
Monograph Series
Number 2 (1975)

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The project which culminated in this monograph began nine months ago as an attempt to look objectively at the policy implications for developing countries of the infant food advertising problem. It involved reading all the relevant articles I could find in scientific journals and books, including transcripts of most of the PAG-sponsored pediatrician/infant food industry seminars. I also corresponded directly with concerned health professionals in the U.S. and in several developing countries, and the major infant food companies themselves, and would like to express my gratitude to all of them for the effort they made to supply me with as much information as they could.

Unfortunately, I was unable to come up with much more than opinion on all sides of the issue. Efforts at developing policy seemed to have made little progress for the simple reason that no one knew very much about how much or what kind of infant food advertising was being done.

This monograph represents a preliminary attempt in that direction. It could never have been completed without the kind cooperation and suggestions of numerous persons, particularly Dr. Derrick B. Jelliffe. I would like to especially thank those who helped with the translating and Marilyn Ward who typed the final draft. Many thanks to the lawyers and to both my sisters for help with the legal problems which threatened to prevent the publication of this paper. The wholehearted aid and support provided by Robert B. Choate of the Council on Children, Media and Merchandising was also beneficial.

But most of all I am grateful to Dr. Michael C. Latham who was never too busy to lend an ear and offer a word of encouragement.

INTRODUCTION

by

Professor Michael C. Latham

Lactation is a normal and natural process common to humans, and other mammals, and it usually provides an optimal diet for the newborn. That breast feeding (or "nursing" as it is called in American English) should have declined so markedly in many industrialized nations, and be declining rapidly in many developing countries is a strange and unfortunate happening. It is perhaps as unusual as if in the early part of the 21st century it became the normal practice for a large proportion of the human race to have babies by Caesarian section, to receive their nutrients by intravenous infusions, and to urinate through catheters.

Advantages of Breast Feeding

That great and humane pediatrician Paul Gyorgy has said "Cows milk is best for baby cows and human breast milk is best for human babies." No one can justifiably deny the truth of that statement. For people who have good economic means and who live in modern conditions there is no adequate proof that breast feeding is nutritionally vastly superior to bottle feeding. From a nutritional point of view, science and industry together have combined to produce milk products which mimic breast milk and contain the quantities of known nutrients fairly similar to breast milk. However no sensible person would argue that these formulae or that the milk of other mammals are superior to human breast milk for infants. In fact there is very convincing evidence to the contrary. Therefore my advice would always be for women to breast feed rather than bottle feed unless there is some good reason for not doing so.

The advantages of breast, over bottle feeding, include the ready availability and convenience of breast feeding (breast milk comes in excellent containers); the adequacy of nutrients in breast milk; the greatly reduced likelihood that it will lead to infant obesity; the economic advantages for the family and the nation (breast milk is the one available low cost high protein food of animal origin); the good mother-child relationship fostered by breast feeding; the immunity conferred by the globulins in breast milk; the fact that the chances of developing diarrhea are reduced by breast feeding and enhanced by bottle feeding; and the contraceptive effect of breast feeding.

Until fairly recently it was considered an old wives tale that breast feeding helped prevent pregnancy. There is now good evidence to show that although lactation is not a reliable contraceptive method it will on the average lead to birth intervals of 5 to 8 months longer than in those not breast feeding. This is due to a hormonal effect which delays the return of ovulation. Also in some societies women who are breast feeding do not have sexual intercourse, or have it less frequently than non-lactating women. The wider spacing of children resulting from breast feeding is perhaps having a greater influence on the rate of population increase than is the pill or IUD in many countries.

Problems Due to Bottle Feeding

Although breast feeding has advantages everywhere, it is now recognized that for about two-thirds of the world's population bottle feeding of infants is highly undesirable, and in many instances placing an infant on a bottle might be tantamount to signing the death certificate of the child. Bottle feeding is responsible for a huge amount of childhood illness and for many many deaths. In several developing countries where I have worked bottle feeding is the cause of more deaths than is cancer--yet vast sums are spent on cancer research, journals and textbooks are devoted to tumors, while research on breast feeding is quite limited and the literature on the subject is rather scanty.

Why is it that bottle feeding is such a serious public health problem for infants in developing countries and for the infants of the poor everywhere? There are two main reasons:

(1) Overdilution leads to marasmus

Bottle feeding frequently leads to undernourishment, then nutritional marasmus and often death in infants in poor communities. The commercial products available for bottle feeding are relatively expensive in terms of prevailing incomes in developing countries. As a result the family will often purchase too little of the milk, or formula, and will overdilute the mixture in the bottle. The infant may be given the correct number of feedings and the recommended volume of liquid, but each feeding is too low in its content of calories and other nutrients. The result is a slow but inevitable development of nutritional marasmus. In 1963 while working in Tanzania I reported that the cost of adequately feeding a 6 month old infant was equivalent to half the minimum wage in that country. How can a family allow over half their income to be spent on the food of their youngest member?--and mean incomes in Tanzania are well below the minimum wage. It was also estimated that on the mainland of Tanzania with about 10 million persons the production of human milk was approximately 40 million gallons per year. The value of that in terms of foreign exchange would have been U.S. $22,000,000 per year if substituted with powdered cows milk or milk formula. This is a sum considerably larger than the total budget of the Ministry of Health in that year.

(2) Contamination leads to diarrhea

Poor hygiene with bottle feeding is a major cause of gastroenteritis and diarrhea in infants. Breast fed children in developing countries have a much lower incidence of diarrhea. Mortality statistics from most poor communities show that gastrointestinal infections are the single largest cause of infant deaths. The pediatric wards of tropical hospitals are full of babies dying of this man-made disease. The reasons for the contamination of the formula, or milk, in the bottle are numerous. Milk is a good vehicle and culture medium for pathogenic organisms. It is incredibly difficult to provide a clean formula, let

alone a sterile one, (a) when the family water supply is a ditch or a well, contaminated with human excrement (and few households in developing countries have their own safe supply of running water), (b) when household hygiene is poor and the home environment is characterized by flies and feces, (c) when there is no refrigerator or other safe storage place for a mixed formula, (d) when there is no turn-on stove, and in order to sterilize the bottle or boil some water, someone has to gather fuel and light a fire on each occasion, (e) when there is no suitable equipment for cleaning the bottle between feeds or when the bottle used may be a cracked and almost uncleanable soda bottle, and lastly (f) when the mother lives in the pre-Pasteur era having little knowledge of hygiene, and through lack of educational opportunity, does not even understand the germ concept of disease.

Reasons for Spread of Bottle Feeding

Why is there a trend to bottle feeding and why is it spreading so rapidly in developing countries, especially in the urban areas? In some instances this is due to the break-up of the extended family, the emancipation of women and the need of women to take their place in the work force. Some countries have made it feasible for working women to nurse their babies at their place of employment.

However among the factors influencing the decline in breast feeding in developing countries are:

(1) Western influence - U.S. and European mothers seldom breast feed, and their practices of behavior and dress are a potent influence in poor societies. A belief develops that it is superior, chic and sophisticated to bottle feed. Breast feeding may come to be regarded as a "primitive" practice and the bottle becomes a status symbol. The efforts of the La Leche League in the U.S. are commendable in that they are influencing American women to practice breast feeding.

(2) Medical advice - In industrialized countries the medical profession must take a large share of the blame for the decline in breast feeding. In many hospitals infants are placed on the bottle while their mothers are still in the obstetric wards, and few obstetricians or pediatricians encourage breast feeding or appreciate its value. Health professionsls in poor countries have also contributed to the decline in breast feeding.

(3) The breast as a sex symbol - In the West we have developed a sort of breast culture, a mammary gland fixation. In our male dominated society the female breast has become the dominant sex symbol accentuated in books, by the media and in women's clothes. Plastic surgeons earn large sums making small breasts large and large breasts small. Yet in many countries women still expose their breasts in public under quite normal circumstances, not in cocktail bars and on theater stages. Certainly it is accepted that infants be breast fed in public places. This used to be the case also in the U.S. and in Europe.

(4) Advertising and marketing of products for bottle feeding - This is possibly the single most important reason for the rapid decline in breast feeding in developing countries in recent years. Advertising of substitutes for breast milk is widely used in newspapers, magazines, billboards, and on radio, on television and even in cinemas. These media are very influential. The onslaught is terrific, the message is powerful, the profits to be made are high, and high also is the resultant human suffering. The manufacturers also use aggressive marketing techniques and often try to influence the medical and health profession to advise their patients to bottle feed.

Monograph by Ted Greiner

For the past fifteen years a number of us concerned with nutrition and health in developing countries have expressed concern about advertising and the promotional tactics of certain manufacturers of infant breast milk substitutes. We have pointed out that Swahili newspapers in East Africa, Hindi magazines in India, and medical journals in Latin America, to cite three examples, frequently advertise these products. Many of the advertisements used imply that it is easier and more sophisticated to bottle feed. They suggest that it produces healthier babies. The newspaper advertisements frequently show a well dressed local woman in front of a pleasant clean house, bottle feeding a content plump baby. The message will often state that the particular product produces strong and bouncing babies. The implication is that nice people with nice houses wanting nice babies, bottle feed their infants. The advertisements may point out how easy and how good it is to bottle feed with a particular product. In fact, as previously stressed, it is incredibly difficult and extremely bad for the majority of Africans, Latin Americans and Asians.

Although Professor Derrick Jelliffe, now at the University of California, and others, including myself, have been critical of this advertising, and have suggested legislation to control it, there has been no good investigation of the role and nature of this promotion.

Ted Greiner is undertaking a rather detailed study of the policies of a number of leading manufacturers of commercial formulas. He has investigated in particular the advertising messages aimed at the medical profession, and the policy of the companies in promoting their products. This involved a very extensive search, and many many hours spent perusing journals and reports. This monograph is the result of that task, but is only the beginning of a wider investigation of bottle feeding.

In producing this report he has tried to make the facts speak for themselves. He has clear views about the harm that bottle feeding is doing in developing countries, but in this monograph he has been careful to present the evidence, and to let the reader draw conclusions. He has taken a scientific approach, and by so doing has contributed to knowledge in an area which is largely neglected.

It has been a pleasure to work with him, and to have the opportunity to write this introduction which attempts to place his study in perspective, within the breast versus bottle feeding issue.

The Promotion of Bottle Feeding by Multinational Corporations: How Advertising and the Health Professions Have Contributed

by

Ted Greiner

From the discovery of fire to the Manhattan Project, Science has had a way of raising the ante in mankind's life and death struggle. Artificial infant feeding is no exception.

History does not record mankind--or womankind's first attempt at usurping her mammalian heritage. But we do know that breast substitutions were well advanced 1,000 years before Christ. A mother holding "a very modern-looking" nursing bottle in one hand and a stick to mix the food in the other is depicted in a relief found in the ruins of the palace of King Sardanopolis of Ninevah--who died in 888 B.C. (1).

Artificial feeding undoubtedly saved the lives of many infants whose mothers were unable to breast feed them. But feeding young infants any way besides at the breast was dangerous. Soanus of Epheses, a Roman physician of the second century A.D., chided those "foolish people who begin artificial feeding too early" (2). According to Sir Hans Sloan, the mortality of suckled infants in Britain in 1660 was 19.2%; for "dry nursed" infants it was 53.9% (3).

In eighteenth century Lyons, fondlings were boarded out to wet nurses within one week of reception; the mortality in the first year was 33.7%. During the same period in Paris fondlings were suckled by wet nurses in the hospice; mortality was 50.3%. In Rheims they were boarded out, but were mainly "hand reared"; mortality was 63.9% (4). In Rouen, from November 1763 to November 1765, 132 infants were fed cow's milk diluted with water. At the age of three months meal-pap, soup, and some cider were added. Only five survived (3).

In 1753, the governor of the Vasa district in Sweden received permission from the King to fine those mothers who did not breast feed. The funds collected were to be distributed among mothers who could show five or more children above the age of six (5).

Until the twentieth century, breast feeding did, however, remain the feeding method of choice for the vast majority of mothers throughout the world.

Its downfall was presaged by three mid-nineteenth-century events. Louis Pasteur discovered that many diseases are caused by microorganisms. Phillip Biedert identified casein curd formation in an infant's stomach as the main disturbing factor when cow's milk was fed. And Gail Borden developed a method for condensing milk, inadvertently creating a sterile product with a low curd tension.

In this century, bottle feeding has been progressively improved to the point where there are no longer striking differences in the growth and development of breast-fed vs. properly bottle-fed infants. Yet, in low income countries bottle feeding contributes heavily to high infant mortality rates (6-11).

More and more Third World mothers who can neither afford a breast milk substitute nor prepare it hygienically are taking their infants off the breast at ever younger ages. Diluted, contaminated feeds are resulting in protein-energy malnutrition, usually accompanied if not triggered by gastroenteritis and diarrhea. Other infections are often synergistically involved. Death is commonly the outcome.

The reasons for this decline in breast feeding are undoubtedly complex, varying with time, place, and culture. Several of the more likely contributing factors are grouped into five categories below. The page numbers in parentheses refer to advertisements in Appendix 2. Each is representative of advertisements in journals of the health profession which exemplify that particular factor, or in some cases, may serve to reinforce it.

I. Actual biological reasons for discontinuing breast feeding, as mentioned in survey reports

- A. Breast abscess
- B. Serious illness of mother or child (48)*
- C. Insufficient milk (39)*
- D. Pregnancy

II. Psychological

- A. A fear that breast feeding is too difficult to do
- B. A fear that breast milk is not meeting all of infant's requirements or is inferior to commercial products (47)*
- C. Any factor which interferes with the milk ejection reflex (49)*

III. Sociocultural

- A. Break-up of the extended family (less opportunity for younger women to learn from experienced family members)
- B. The emancipation of women: a striving for freedom from the constraints of motherhood or simply for convenience (40)*
- C. Increased participation of women in the work force
- D. Increased trend toward urbanization (cultural vacuum is created which may lead to increased vulnerability to new practices)
- E. Western influence
- F. Development of bottle feeding as a status symbol, the modern thing to do (41)*
- G. Changing attitudes toward the human breast
  1. Endowing it with cosmetic or sexual rather than biological or maternal qualities
  2. Anxiety that breast feeding will cause a woman to lose her figure
  3. Taboo against breast feeding in public places (42)*

*These are page numbers in Appendix 2.

IV. Effects of health services

A. Missionaries and others who spend too much time teaching mothers how to properly bottle feed, often endowing the bottle with desirable qualities
B. Medical advice from uninformed or Western-trained doctors, nurses, or other professionals
C. Poorly thought-out provision of supplemental infant foods to the population at large, especially at maternal clinics (see page 14, quote from Nestle Annual Report for 1963, p. 24)
D. Practices in maternity wards and clinics which tend to discourage the establishment of breast feeding, such as separating the mother and infant
E. The early introduction of solid foods (43)*
F. Tacitly endorsing infant food products
   1. Giving away free samples, as furnished to hospitals by formula companies as on page 44. (See also page 61).
   2. Giving out free literature printed by infant food companies

V. Activities of companies involved in the marketing for profit of products for infant feeding

A. Promoting their widespread availability in food as well as drug stores
B. Utilizing package labels showing healthy babies and touting their added vitamins (45)*
C. Advertising to the public and health professionals in all media (Appendix 1 and 2)
D. Funding scientific research aimed at establishing scientific acceptance or endorsement of various products (43)*
E. Sponsoring pediatric and other professional conferences
F. Providing other goods and services to health professionals (46)*
G. Hiring health professionals, or persons taken by the public to be such, who engage in various promotional activities
H. Encouraging retail point-of-purchase promotional activities, displays, etc.
I. Sponsoring community activities, contests, etc., which involve product promotion

Few of these factors act in isolation; they are probably involved in a complex causational web, unique to each society and to a lesser extent to each individual.

Indigenous supplemental feeding practices exist in any given culture (12, 13). And some of the factors involved in the further decline of breast feeding are unavoidable (14), but efforts can and should be made to deal with those factors amenable to change.

*These are page numbers in Appendix 2.

Much concern has recently been expressed about those factors listed above in category V (15-30). Various promotional activities could be effective, not only in convincing mothers of the value of an individual company's products and of bottle feeding in general, but could also have the effect of making a mother less confident in her own ability to successfully lactate, or in the quality of her own milk. As Latham points out (20), infant formula companies stress the nutrients added to their products without mentioning that such additions are unnecessary for the first few months of lactation--even poorly nourished mothers seem to produce milk of adequate quality (31).

Although almost all mothers are physiologically capable of successful lactation, "success or failure depends principally on the effectiveness of the key, psychosomatic let-down reflex, which can be impaired by anxiety or enhanced by confidence" (32). Almroth recently investigated the infant feeding pattern in Jamaica (33) where breast feeding is still common but infant food advertising is intense. Surveys showed that many mothers gave rather vague and hard-to-categorize reasons for putting their infants on the bottle. Many mothers simply said, "no special reason". Other commonly given reasons such as "baby weaned himself", and "baby didn't want breast milk" represent a mother's interpretation of a process which simply does not occur--at least in a pre-commercialized society. Such responses suggest that the most powerful influences may operate subconsciously. Advertising and promotion of commercial infant foods may be most effective in this realm.

Although the advertising of commercial infant foods has received much concern, it has received little study. Direct study of advertising and promotional practices as they affect populations in developing countries must be carried out "on location". This study, although "home-based", undertook to contribute to international understanding of this complex problem through: (1) a survey of infant food advertising in newspapers and magazines from developing countries as they are available at Cornell University; (2) a study of some interrelationships between the health professions and infant food companies, (a) through a study of advertising in professional journals, and (b) through an analysis of educational publications written by infant food companies for distribution to the public, largely via the health professional; and (3) a compilation of data on multinational companies which market infant foods.

Table 1 presents the quantitative findings of the newspaper advertising study, divided into "high income" and "low income" groups. African and Latin American newspapers are in the high group because of Cornell's policy of subscribing to only one newspaper from each country, usually the largest; Asia receives more careful study here, especially Southeast Asia and Indonesia; a large number of their publications are available, many of quite limited circulation. Table 1 notes the main differences between the two types of newspapers.

High income newspapers are mostly from 1974; low income go back as far as 1968. Newspapers were sampled haphazardly. More issues per publication were scanned among low income newspapers because they were so much smaller with so many fewer advertisements per issue.

Table 1. INFANT FOOD ADVERTISEMENTS IN WORLDWIDE PUBLICATIONS

Country or region	Total no. of publications included	Total no. of issues scanned	Total no. of issues containing infant food ads
HIGH INCOME*			
U.S. and Canada	54	81	1
Europe	40	50	0
Australia	2	13	4
Africa	15	17	0
Latin America	19	43	0
LOW INCOME**			
Middle East	17	63	15
Far East	14	31	0
Malaysia	14	71	4
Philippines	10	30	2
Cambodia & Laos	4	13	0
Viet Nam	27	389	73
Thailand	19	258	52
South Asia	29	148	14
Indonesia	45	391	26

*Publications classified as "high income" were usually in English. Most were from the capital cities of countries. They tended to have a great number of pages per issue, and a high percentage of space per page devoted to advertising. To be classified as "high income" a publication's leading advertisers would have to be similar to the following: (1) banks and financial services, (2) stores, (3) automobiles and home appliances, (4) industrial machinery, (5) airlines and tourism. These are the leading advertisers in Brazil's five "international pattern" newspapers (34). Provision was made for cultural differences.

**Low income publications were usually written in local languages. Many were from smaller cities, and of lower circulation. They had fewer pages per issue and less advertising per page. Rarely if ever did they carry ads for expensive items. Items most heavily advertised were far from being necessities, however, for example, soft drinks, tonics, and liquor. Each geographic area listed as "low income" typically had one or two high income publications; however, there were not enough of these to justify analyzing them separately. Infant food advertisements were found in only two of them.

In scanning for advertisements, if I could not read the language, I watched for pictures of babies or of tins of formula. No advertisements in papers written in English were without such pictures, so this was probably a thorough method of scanning. Advertisements for processed milks (e.g., evaporated or condensed) were counted only if babies were pictured or mentioned in the copy of the ad.

There appears to be a tendency to advertise selectively in low income publications. This should come as no surprise, since advertising funds are targeted toward maximum efficiency. In developed countries and among upper classes in low income countries, infant food markets are too close to being saturated for advertising in general papers to be profitable. Instead, direct mail and ads in women's, baby, and "confession" magazines more economically reach the target audience: new mothers.

Lower income areas in many developing countries present untapped markets, but provide less opportunity for zeroing in on target groups through direct mail and specialized magazines. Thus broad-based media such as radio, outdoor displays, general publications, and recently even TV, are relied on. Efforts at reaching target groups are confined to promotion through clinics and hospitals, retail outlets, and home visitations using hospital-provided lists of new mothers (35).

Many infant food companies claim that they attempt to direct advertising toward more affluent audiences. The data in Table 1 would suggest that few infant food companies are taking advantage of the unique ability of print media to direct advertising messages selectively toward the affluent. This impression is reinforced by the fact that the few high income papers published in the "low income" Asian countries carried only 2 of the 186 infant food advertisements recorded.

Most of the advertisements represented in Table 1 were placed by indigenous companies or smaller multinational companies. Of the larger multinational infant food companies to be discussed later in this paper, only Ross Laboratories, Wyeth Laboratories and Foremost-McKesson (mainly in Viet Nam) had large numbers of ads. Glaxo had a few and East Asiatic Co. (Dumex) had one. It should be emphasized that this says nothing about relative promotional practices of these companies beyond those few areas covered, the limited media studied, and the less-than-rigorous methodology used.

The limited nature of this study justifies no more than a cursory analysis of the contents of these ads. The five ads reproduced in Appendix 1 exemplify a few of the themes and approaches which were recurrent.

The Amulspray advertisement uses a basically emotional approach with a picture of the "champion baby" taking up most of the space. "Large sales volume", "high protein content," and "ideal substitute for mother's milk" are recurrent themes for many companies. (page 25).

Lever's advertisement also uses an emotional approach--a picture of a healthy baby, a quote from a typical housewife including idiomatic statements and traditional superstition. The stress on a formulation ideal for the local environment is very common in ads by indigenous companies. (page 27).

Many imported infant foods stress their origin from a developed country--examples referring to England and Switzerland were found in addition to All-Pure's rather exaggerated tie-in with the U.S. (page 29).

The SMA advertisement may have an effect on a semi-literate Vietnamese mother similar to the one a person who does not know the language experiences: it appears as if the reader is being offered money.[1] Its exaggerated presentation of economic and scientific facts is slightly toward the extreme end of the spectrum among the ads found. (page 31).

Mothers who are unsure if and when to bottle feed are encouraged by the Similac advertisement to use it right from the first day. This is a common advertising technique, for buying involves decision making, and as one expert, Otto Kleppner, says, "...the chronic foe of all decision making is inertia" (37).

Contrary to the appeal to self-determination which this ad seems to make, most ads which broach the subject encourage the customer to consult with a doctor. (page 33).

Extensive market research, as well as certain psychological studies, have suggested that attitude or belief changes precede sales changes and vary with them, while knowledge changes are unrelated to either attitude or sales changes (38). An appeal to the emotions is a salient if not a dominant feature of most infant food advertising found in "low income" publications. Much advertising copy which might at first appear to be appealing to logic, is actually a further appeal to the emotions (this may explain the common lack of scientific accuracy exemplified in some of the advertisements in Appendix 1). For example, the Lever's advertisement on page 27 appears to have one segment with a strong factual or rational approach. Even in the United States, a reference to vitamin B_{12} and folic acid would not be used as selling points to any but the most sophisticated audience. However, these nutrients are probably mentioned simply to justify the statement that a doctor considers this to be beneficial for the baby's blood--a recurrent theme throughout many cultures, and one often charged with emotional connotations.

However, demonstrating that "low income" infant food advertising is written in such a way as to be optimally effective does not prove that it is, in fact, responsible, wholly or in part for a mother's decision to bottle feed. As marketing researchers know only too well, there is no sure method for determining the exact extent to which advertising succeeds in influencing behavior.

It would be much to an infant food company's advantage to enlist health professionals as unpaid salesmen. Category V on page 3 lists some of the methods used to build good will, to bring products' advantages to professionals' attention, and to secure a recommendation for their products.[2] Category IV on page 3 lists several ways in which health professionals may, in effect, promote commercial infant foods.

1/ Such considerations should not be viewed as trivial with respect to developing countries. Even in the United States, "courts have held that the overall impression that an advertisement gives is the key as to whether it is false or misleading...If an advertisement has even a 'tendency to deceive', the FTC (Federal Trade Commission) may find it illegal". (36)

2/ Ads (51) and (52) in Appendix 2 exemplify the spectrum of attempts made, for example, to establish a rapport with pediatricians.

A fuller examination of the interrelationship between infant food companies and the health profession must include a look at the advertising directed toward health professionals. In an extensive review article, Bauer and Wortzel point out that a great many studies have been conducted showing "that commercial sources of information form a major, and probably a predominant, part of the physician's means of keeping informed about new drugs" (39). Undoubtedly this is also true for infant foods. In particular, almost all infant formula is marketed by pharmaceutical firms or pharmaceutical divisions of dairy or food companies.

In 1957-58, Ben Gaffin and Associates conducted a survey for the American Medical Association of a national, representative cross-sectional sample of 1,001 practicing physicians (40). Bauer and Wortzel show that events in the following seven years served "only to heighten, rather than to change, the findings of this report" (39).

Table 2 presents a portion of their findings. It shows that a relatively large percentage of physicians find medical journal advertising a useful source of information on new drugs.

To find out what health professionals have been learning about infant foods from professional journal advertising, journals in several libraries were scanned. Photocopies were made of over 800 different infant food advertisements from journals spanning the last 100 years. Records were kept to document that infant food advertisements appeared at some time in some form in 221 different journals of the following health professions or specialties: 123 general medicine, 38 pediatrics, 14 nutrition, 10 nursing, 10 obstetrics and gynecology, 7 public health, 4 allergy, and 2 surgery. Many of the products advertised, as well as some of the journals themselves, are no longer in existence. However, this is certainly an underestimate of the number of journals that have carried infant food advertising during the last century, since advertising is omitted from most bound journals in the libraries utilized.

Table 2. PHYSICIANS' PREFERRED SOURCES OF INFORMATION

Source of information (ranked in order of frequency of mention)	Percent of physicians finding source useful
Detail men	68
Journal papers and articles	40
Medical journal advertisements	32
Direct mail	25
Doctor conversations	24
Drug samples	22
Staff meetings in:	
hospitals and clinics	16
national conventions	15

Source: (40)

Among products counted as infant food were infant formulas (including meat- and soy-based formulas), infant cereals, and strained baby foods. Some early products were simply advertised as infant foods. Other products, included only if the ad concerned promoted them for use as an infant food, include evaporated milk, condensed milk, powdered milk, and carbohydrate modifiers.

Infant food advertisements were found in all pediatric journals which contained any advertising. Such pediatric journals also contained a greater number of infant food ads per issue than other types of journals (except for the American Journal of Public Health, which is as high or higher, in recent years at least).

In all categories listed, except surgery, most of the journals which contained significant quantities of advertising were found to contain infant food advertisements if enough time was spent searching through them. With the exceptions noted above, infant food advertising tends to be sparse and sporatic. In recent years, advertisements appear in quantity only when new products are introduced.

Approximately 38 of the journals containing infant food advertising were published in countries which could be considered low income or developing countries. Generally they contain a higher number of infant food ads per issue than journals of comparable date and area of specialty from developed countries.

There appears to be a growing sentiment among many health professionals that infant food advertising should not be directed toward the public. Some would also press for its removal from professional journals. In fact, several journals have suspended certain kinds of advertising or have stopped carrying advertising altogether, in spite of the financial difficulties involved.

For those journals which continue to advertise, there may be pressure to screen advertisements more carefully according to certain codes of ethics. The advertisement on page 35 shows that screening boards and codes of ethics have been in existence for some time.

Presumably there is a need to insure that the seal of approval of such a screening board is not misused or exploited (see the advertisement on page 36).1/ Advertisements should be screened for such things as incorrect statements or recommendations of undesirable feeding practices (see advertisements pages 37 and 38).

Some might prefer to adopt an even more selective screening method designed to avoid advertising approaches which reinforce factors contributing to the decline of breast feeding, such as those advocating the early introduction of solid foods. In particular, advertisements which mention breast feeding might be required to meet up to strict guidelines.

1/ Note that dates on advertisements should be consulted before judging their relevance for current advertising or screening policies.

For example, advertisements such as the one on page 50 advocating supplemental bottles for breast feeding infants might indicate that care should be taken to ensure that this does not lead to problems such as breast engorgement or reduced milk supply because of reduced sucking stimulation of the breasts.

In many cases, advertisements as well as tins of infant formula might be required to carry contraindications in the same way that medicinal drugs are required to do. For example, high-protein or high-mineral formulas should not be used with infants subject to low fluid intake or high fluid loss (sweating, vomiting, diarrhea). Increased renal solute loads could lead to dangerous dehydration in young infants. The advertisement on page 53 illustrates a formula which provided about 40 per cent of its calories from protein.

The need for strict codes of advertising ethics and contraindications for use of formulas is even greater in developing countries. Advertisements in journals of countries where bottle feeding is a serious health problem may simply take advantage of a health professional's concerns rather than helping him or her cope with them.

Historically, companies have advertised formulas for the treatment of gastroenteritis, marasmus, and kwashiorkor (pages 54 and 55). Recently they have tended to exploit fears over bacterial contamination and over-dilution. Wyeth advertisements call SMA "a professional, trouble-free formula," producing babies which are "healthy, vigorous and happy," in an advertisement in the Journal of the Philippine Medical Association, June, 1971. They claim that "S-26 protects like mother's milk," and "S-26 protects baby against common infections," in another advertisement in J. Phil. Med. Assn., Sept., 1972.

Nestle claims that Pelargon provides "extra protection" and a "reduction in bottle-borne infections caused by poor hygiene," in the advertisement on page 56. And Lactogen "full protein" can be "safely recommended" when doctors suspect that mothers may overdilute the formula to economize, in the advertisement on page 57.

It was pointed out above that it would be to the advantage of an infant food company to utilize health professionals as salesmen. One way this is accomplished is by providing them with free literature on infant care and feeding to be given out to new mothers. It is distributed in huge quantities. Gerber alone had distributed some 20 million copies of infant care booklets to new mothers by 1956 (41).

One model for describing how new ideas and practices are diffused, the "innovation theory," includes (1) awareness, (2) interest (and information-seeking), (3) evaluation, (4) trial, and (5) adoption. In developed countries, literature on infant care and feeding sponsored by infant food companies can meet the needs of the crucial second step in the sequence leading to the adoption of commercial infant feeding. Such literature may play an even larger role in developing countries: the evaluation stage may be attenuated in naive mothers and, depending on how such literature is distributed, it may also initiate the first step of awareness.

Literature on infant care and feeding which is free from advertising and positive about breast feeding is available from La Leche League. However, limited budgets may require many health professionals and health service organizations to seek free literature. Thus there is a need to evaluate comparatively the literature available from commercial as well as governmental sources.

Table 3 presents results from a preliminary effort at developing a method of content analysis for free infant care and feeding literature. The publications used represent all of the ones provided to us by the Montgomery County, Maryland and Tompkins County, New York Departments of Public Health and the companies themselves in some cases. The list is not meant to be comprehensive, but no publication on hand was excluded.

Publication numbers in the first column of Table 3 refer to the title and publisher or sponsor of each pamphlet. Date of publication and total number of pages are then listed.

The fractions in the next two columns give an indication of the amount of space devoted to breast feeding (BRF) vs. that devoted to bottle feeding (BTF). The first of these columns reports the total number of partial and complete lines of print devoted to each type of feeding. The second indicates the number of pictures (photographs or drawings) of breast feeding babies over the number of pictures of bottle feeding babies. Pictures of breasts alone (rare) and pictures of bottles or infant food products (very common) are not included.

The final column presents a fraction intended to serve as an index of the positive vs. negative statements about breast feeding. The numerator (+) includes only positive statements such as "your milk is the best food for baby" or "mother's milk is instantly available and it contains all the nutrients baby needs." But commonly occurring qualified positive statements such as "many mothers find real satisfaction in nursing," "some mothers find breast feeding easier," or "it is hard to argue against the 'rightness' of human milk for human babies" are not counted as positive (or negative) statements.

Statements classified as negative (-) may: (1) present breast feeding as such a complex or complicated activity that they might create doubts in the mother's mind that she can successfully breast feed, or convince her that bottle feeding would be much less trouble to do; (2) create the impression that an infant food is somehow extra-nutritious and good for her infant, above and beyond her own milk; (3) recommend practices which in the long run may cause problems leading to cessation of breast feeding (e.g., sticking to a rigid feeding schedule or washing nipples before and after each feed with soap and water); (4) make scientifically inaccurate statements. Since there is legitimate scientific disagreement about many aspects of infant feeding, one comprehensive opinion was chosen to serve as a guideline by which to measure statements. Applebaum's "Modern Management of Successful Breast Feeding" (42) was chosen because it is strict enough to provide a meaningful basis of relative comparison as long as it is uniformly applied.

Table 3. CONTENT ANALYSIS OF INFANT FOOD PUBLICATIONS

1. Carnation: You and your contented baby
2. Gerber: Foods for baby
3. : How does your baby grow?
4. Mead Johnson: Infant care when traveling
5. : The Mead Johnson baby book (Jamaica)
6. Nestle: The dawn of a new life (Africa)
7. : A life begins (Asia)
8. Ross: Breast feeding your baby
9. : Food for a healthy mother and baby
10. : Mother and baby care at home
11. Wyeth: Care of your new baby
12. : Caring for your new baby
13. National Dairy Council: Feeding your baby during his first year
14. Heinz: From milk to mixed diet (England)
15. Johnson & Johnson: Baby's eating and sleeping habits
16. Md. State Dept. Health: Baby's food calendar
17. : Helpful hints for feeding baby
18. NY State Dept. Health: Baby book
19. : Suggestions for prospective mothers
20. US Dept. HEW: Infant care (Children's Bureau Pub. No. 8)
21. : Infant care (revised)

Pub. No.	Date	No. Pages	Lines BR F/BT F	Pictures BR F/BT F	Statements No. +/-
1	1974	5	34/79	2/4	3/4
2	1963	32	2/28	0/1	0/14
3		12	8/0	0/0	1/2
4	1971	31	0/62	0/1	0/0
5	1972	49	45/298	1/1	0/13
6	1973	48	22/78	1/1	2/13
7	1973	40	35/66	2/2	2/15
8	1973	16	312/184	4/2	9/18
9	1972	8	3/47	1/1	1/0
10	1972	29	78/273	1/2	0/9
11	1962	20	3/122	0/1	0/2
12	1973	23	39/207	0/2	2/7
13	1972	5	6/8	0/1	2/1
14	1973	28	16/70	0/1	1/9
15	1972	10	87/68	0/1	7/10
16	1973	8	2/26	0/1	0/5
17		3	5/7	0/0	4/3
18	1972	51	104/135	0/1	0/9
19	1929	22	68/0	0/0	11/4
20	1963	108	250/750	1/1	4/7
21	1973	72	79/158	1/2	4/6

Using this basis of evaluating infant care and feeding publications creates the impression that most are "anti-breast feeding." On the surface they are not. None say overtly negative things about breast feeding. Yet this method of content analysis may actually underestimate the negative effects of these publications on the breast-vs.-bottle attitudes of a mother who reads them. This is because: (1) the method ignores much subtle innuendo; (2) a new mother may be especially susceptible to any advertising messages dealing with the welfare of her infant; (3) mothers may assume that the professional or agency which gave her the publication has read and endorses all the statements it contains; (4) the skepticism with which advertising is usually viewed may be reduced or completely inactivated by the "helpful hints" tone of the infant care literature; (5) omissions are not taken into account. A company may emphasize all the nutrients added to its formula, without telling a mother that her milk already contains them in adequate quantities. Or it may stress how crucial it is for a lactating mother to obtain an adequate diet (Nestle's pamphlet for Africa, Publ. No. 6, Table 3, says a mother must have a meat, a dairy product, and a legume every day), without mentioning that very rarely does a mother need to worry that her milk will be adequately nutritious for her infant. Her body may suffer from inadequate nutrient intake, but seldom will it be severe enough to significantly reduce the quality of her milk (29). Finally, free literature may be more likely to constitute the sole source of information for poorer mothers who can less afford commercial infant foods.

The first 15 publications tabulated in Table 3 are sponsored by commercial firms. Most receive uniformly low ratings with respect to both space given to and statements made about breast feeding, including the three distributed in developing countries. Ross' "Breast Feeding Your Baby" devotes more space to and makes more positive statements about breast feeding than the others. It also makes more "negative" statements. Five out of its sixteen pages are devoted to promoting its formulas. It was the only breast feeding publication given to mothers requesting information on infant feeding by the two health departments mentioned above.

Two of the publications in Table 3 are sponsored by companies which do not market milk or infant formula: Heinz and Johnson & Johnson. The Heinz booklet (Publ. No. 14) recommends extensive early replacement of breast milk with Heinz Baby Foods, as opposed to the accepted method of supplementing milk with gradually increasing quantities of solid foods as the infant's appetite grows. Heinz recommends that breast feedings be given only at certain widely spaced times. Even for 11-pound infants, according to the booklet, some meals should be entirely composed of Heinz products. A 13-pound or four-month-old infant is to receive only one full breast feed per day. One meal is totally Heinz products and for two other meals only partial breast feeds are allowed, presumably to save the appetite for Heinz foods. Dr. Penelope Leach has challenged these views (43), but Heinz defends them (44) and claims that it "seeks to reflect concensus medical opinion (45)." This attitude is one reason for including commercial solid foods in any study of those infant foods which could displace breast feeding.

The most highly rated of the commercially-sponsored publications was by Johnson & Johnson (Publ. No. 15), which markets no infant foods.

No. 16-21 of Table 3 show that publications sponsored by state or federal agencies rate little better. The only exception is New York State Department of Health's "Suggestions for Prospective Mothers," which was published in 1929 (Publ. No. 19).

The above discussion of infant food advertising in professional journals and commercial infant care literature cover only two of the areas in category IV on page 3. Whether or not the health professions feel they have participated in the successful promotion of commercial infant foods, the companies themselves seem convinced. The statements that follow are quoted without further comment, mainly from the annual reports of major infant food companies.

Abbott Laboratories (parent company of Ross), Annual Report for 1967, p. 16: "Not only quality of product, but skillful promotion to pediatricians, general practitioners, and hospitals have enabled Similac to hold its market leadership." 1969, p. 10: "Similac is the most widely prescribed infant formula in the world." 1971, p. 13: "Sales of Similac with iron made an increased contribution to total Similac sales volume, aided by pediatricians' recommendations for increased feeding of iron-fortified formulas." 1972, p. 18: "The Ross Division, for example, goes well beyond the training of personnel in procedures. It actually provides free counsel to hospitals for the planning and layout of pediatric wards, and its conferences on pediatric research have stimulated awareness of the dangers of iron deficiency during infancy. In 1972 the division received the Distinguished Public Information Service Award from the American Academy of Pediatrics."

From American Home Products' Annual Report (parent company of Wyeth Laboratories), 1972, p. 4: "The marketing of Wyeth's SMA infant food products received a boost during the year with the introduction of a learning system on infant nutrition. Many physicians across the country took part in the program, which included a film and a monograph featuring recognized experts in the field of infant nutrition." 1973, p. 4: "In East Africa and West Africa, strengthened medical information services, plus improved territorial coverage, resulted in strong sales gains."

From Bristol Myers' Annual Report (parent company of Mead Johnson), 1973, p. 14: "Mead Johnson is frequently introduced to new parents by their doctor or in the hospital with the Enfamil Discharge-Pack." (See p.63)

From Nestle Annual Report, 1963, p. 24: "Professor Calmette of the Institute Pasteur at Lille attributed this fall [in infant mortality in occupied northern France during World War I] to the large scale distribution of condensed milk by the Neutral Relief Committee. From that time onwards, condensed milk, already an important factor in the maintenance of health, also became an essential part of the regular diet of young babies." p. 32: "Nestle's cooperation with the medical profession is

by no means limited to the development of dietary specialities [these are mainly infant foods]. Our company frequently organizes meetings of experts to take stock of new scientific knowledge and exchange information on the latest and most effective techniques... All these products [Eledon, Lactogen, Pelargon, Nestogen], which take the place of breast milk in the infant diet, are supplemented towards the middle of the baby's first year by Nestle's Milk Food...Cerelac, Celac, Selac, or Seremil... Such, then, are the principal milk specialities that Nestle has developed in collaboration with eminent paediatricians." 1964, p. 15: "The dietetic specialities and cereals continue to do well in Latin America, where the diversity of this range enables the doctor to select the product best suited to the individual case." 1969, p. 16: "Milks for infants made satisfactory progress despite falling birth rate and the shortening of the exclusively milk-feeding period. However, some factors are more favourable, such as the increased buying power in the developing countries, and the rising number of births in maternity hospitals where it is easier to reach mothers. This is due to the fact that the medical staff there is more likely to influence mothers with regard to the food most suitable for their babies."

Nestle, 1973, p. 7: "Efforts to improve information in the field of baby feeding and to foster close contacts with the medical profession have continued. The contacts are resulting in the development of products and services, such as ready-to-use infant formulas... As regards consumer-oriented information, the assistance of the medical and paramedical professions throughout the world is particularly valuable for the editing and constant revision of publications intended for young mothers--especially in developing countries." (The Annual Report for 1967 has this comment on such consumer-oriented information: "For a number of years now the allied companies have been trying to keep African mothers better informed on baby care and feeding. This effort has had a beneficial effect on sales of dietary specialities--particularly Lactogen which is now widely used as a baby food. Sales of cereals, especially Cerela and Nestum have also increased considerably for the same reasons.")

Business Abroad, June 1970, p. 33: "In less developed countries, the best form of promoting baby food formulas may well be the clinics which the company sponsors, at which nurses and doctors in its employ offer child-care guidance service. One fruitful by-product of this operation is that at christenings and birthday parties Nestle products often are given as presents."

American Druggist, 162: 43, August 24, 1970: "Baby formula is a high-volume item that is practically pre-sold to new mothers via physician/hospital endorsement."

Sponsor, 16: 34, August 27, 1962: A description of a Heinz baby food advertising campaign. "Mailings are sent to hospitals monthly, along with cards addressed to hospital officials to see that the packages are being sent to the right departments and in sufficient numbers." Each mailing contained a "special letter" to the new mother, a booklet on

infant feeding, a premium, special offer coupons, a promotional leaflet, etc. The direct mail campaign began with 30,000 mailings to pediatricians and 20,000 to nurses all over the U.S. Each contained eight pieces of literature "themed" to prenatal care of the mother and feeding of the infant. The one on infant feeding was translated into Chinese and Spanish to be sent to Singapore, Malaya, Hong Kong, the Caribbean, and sections of New York and Miami.

Almost all infant food companies are multinational or divisions of multinational corporations. A recent United Nations report states that such companies, "which can be at once effective instruments of development and sources of tension or conflict, have become increasingly important in virtually every aspect of international life" (46). Another UN report points out that "the complexity of the subject and the controversy that surrounds it call for serious analysis lest myths prove more appealing than facts and emotions stronger than reason" (47). The report first cited goes on to say that "the dissemination of pertinent information and programmes of technical cooperation will strengthen the capacity of host developing countries especially to formulate policies, to evaluate the impact of multinational corporations on their economies and to ensure that the activities of multinational corporations are consistent with national interests and development objectives" (48).

Appendix 3 presents the following information on 19 of the world's largest infant food companies: (1) parent corporation, (2) subsidiaries which market infant foods or dairy products, (3) types of infant foods marketed, (4) general geographic areas of heaviest marketing, (5) address, and (6) miscellaneous information. This information was gathered from a wide range of sources, primarily annual reports.

Table 4 reports 1973 or 1974 figures from the same companies for (1) total sales, (2) profits, (3) profit margin, and (4) yield, or per cent return on book value of stocks. All are in US dollars. The next column indicates the proportion of each company's business that deals with infant foods or with the department that handles infant foods. The final column indicates the per cent of a company's business which is outside its home country, in some cases separated into sales/profits.

As a further means of comparison, and to put these companies in more tangible perspective, salaries of top executives of five of the companies for 1971 are reported in Table 5. This may represent only a fraction of their income. Benefits, expense accounts, bonuses, and payment in stocks might add much more in some cases.

The size and, with few exceptions, the diversification of these companies raises the question of how important to them the sales of infant foods in developing countries could be. In all cases this would represent a small percentage of total sales. The answer lies in growth. Growth in sales is influential in determining how large dividends to stockholders will be. Growth trends and prospects determine whether investors will buy or sell, to a large extent. Almost without exception,

Table 4. INFANT FOOD COMPANIES: FINANCIAL INFORMATION (IN MILLIONS OF $US) FOR 1973, 1974

Company	Sales	Profit	Margin	Yield	% Foreign business*	% Business in division which handles infant foods
Abbott	765	55	7.2%	2.8%	37	22 (Pediatric)
American Home Products	2075	225.6	10.9	2.8	29/31	38 (Prescription drug)
Baker Labs/ Beech Nut:	private company; no data					
Borden	3265	83.8	2.6	5.9	17/20	24 (Dairy)
Bristol-Myers	1591	120.4	7.6	3.2	24/22	27 (Pharm., Health)
Carnation	1887	80	4.2	2.7	21	48 (Dairy)
East Asiatic**	2793	17	.7	nil	87	
Foremost-McKesson	2147	31.6	1.5	8.8		16 (Dairy)
Gerber	330	15.6	4.7		20/25	70 (Infant foods)
Glaxo	442	51	11.3	31	80	
Heinz	1438	55.5	4.0	3.0	41/43	
Montedison**	4247	55	1.3	8.0		
Nestle	5500	231	4.2	11	97.5	7.5 (Infant food and dietetic)
Pet	1020	23.7	2.3			31 (Dairy)
Reckett & Coleman	590	35	6.0	14	33	46 (Food and wine)
Sandoz**	1112	69	6.2	9	33/38	14 (Agro/Food)
Syntex	218	47.1	22.3		44	68 (Human pharmaceuticals)
Unigate**	1012	24	2.3	11	10	72 (Milk and food)
Wessanen	380	5	1.4		33	

*Sales/Profit
**Business Week, July 6, 1974

Table 5. 1971 SALARIES OF INFANT FOOD COMPANY TOP EXECUTIVES*

Company	Executive	Position	Salary
American Home Products	W. F. Laporte	Chmn. & pres.	$240,000
	H. W. Blades	Exec. vp.	150,000
Borden	A. R. Marusi	Chmn. & pres.	192,600
	W. R. Olmstead	Exec. vp.	112,400
	E. J. Sullivan	Exec. vp.	112,400
Bristol Myers	G. K. MacBain	Chmn.	190,000
	R. L. Gelb	Pres.	165,000
Carnation	H. E. Olson	Chmn. & pres.	148,333
	E. H. Stuart	Hon. chmn.	85,000
Foremost-McKesson	R. J. Drew	Chmn.	180,695
	W. W. Morison	Pres.	127,000
	J. J. Bertnard	Exec. vp.	125,000

*Business Week, May 6, 1972

annual reports include infant foods as one of the fastest-growing sales items in recent years. Yet markets in developed countries are saturated and birth rates are stagnating or falling.

Thus, developing countries are likely to figure importantly in the future as shown for example in Bristol Myers' 1973 Annual Report statement that the international division was the fastest growing, or in Gerber's 1974 Report: "Internationally the company posted significant gains...there remains a vast potential for increasing baby food usage in international markets...Currently the usage per baby is well below that experienced in this country." Abbott's 1973 Report is more explicit: "And Ross nutritionals, with a steady succession of market introductions, were up 32 per cent in sales...In the past year, Similac sales grew at their fastest rate in Africa and the Middle East...The next expansion areas: Other Latin American countries and Italy...In essence, our strategy for 1974 remains unchanged: Maintain consistent growth in the pharmaceutical area, but exert the major thrust at the newer, more dynamic hospital and pediatric market."

Advertising is particularly crucial for growth. In the U.S. about one half of each year's baby food sales is to new mothers. "This demands enormous flexibility and constant advertising and promotional efforts." Mothers, with no previous brand loyalties to overcome, represent "a ripe market of women whose concern is high for the health of their newborn." (Printer's Ink, 287: 55, June 26, 1964).

Table 6 shows the 1973 advertising expenditures of several infant food companies just for the United States. Most of this money is spent for television advertising. However, probably very little is spent for television advertising of infant foods. As suggested above, direct mail and certain magazines pinpoint the target audience better.

The situation is different in developing countries. One description of it is given by Norris Willatt in "How Nestle Adapts Products to Its Markets," in June, 1970, Business Abroad, page 33:

> The advent of television as a universal means of communicating with the shack as well as the mansion permits the standardization to an increasing extent of advertising and promotion. Nestle uses the medium whenever it can. Where it still can't, the company relies on newspapers (mostly the news columns), color magazines, billboards and other outdoor displays.
>
> Among illiterate populations, which still are to be found in many countries where the company is in business, the most effective promotional message can be a poster depicting a pitcher of milk alongside a healthy-looking local child. Consumers dictate the policy...
>
> A striking example of Nestle versatility in adapting tactics to local conditions occurred in Hong Kong. Nestle organized the Lactogen Diaper Derby, a race for babies who had to crawl unaided over a measured distance.

Table 6. 1973 ADVERTISING EXPENDITURE IN U.S. OF INFANT FOOD COMPANIES

Company	Nationwide rank as an advertiser	Total advertising expenditure	Advertising as a % of total sales	Agency for infant food advertising	Account supervisor
American Home Products	6	$133,000,000	9.9	Lewis & Gilman (Phila.)	C.B. Mathias
Bristol Myers	7	132,000,000	12.7	Daniel & Charles (NYC)	
Carnation	94	21,000,000	1.4	Erwin Wasey Inc. (L.A.)	J. Gallagher
Gerber		1,937,300 (measured media only, for 1972)	6.0 (1965)		
Heinz	79	26,000,000	1.8	Leo Burnett Co. (Chic.)	B. Boris
Pet (1974)		16,100,000	1.8		

Sources: Advertising Age, August 26, 1974
Advertising Age, July 16, 1973
Barrons 45: 11, March 1, 1965
Pet Annual Report for 1974

Table 7.

Country	Per capita GNP in U.S. $	Per capita advertising investments in U.S. $
U.S.A.	5,000	100
France	2,600	20
Israel	1,500	7
Hong Kong	650	6
Argentina	650	1
Lebanon	650	3.5
Latin America	450	3.4
Egypt & North Africa	200	0.7
South Africa	120	?
India & Southern Asia	90	0.2

Source: (53)

Table 7 shows that advertising was not very intense in the developing world as of 1971 relative to the U.S. or France. However, that may no longer be as true. The International Conference on Advertising in Developing Countries, at which the data in Table 7 were presented, was a beginning attempt to change that. Presentations were given on topics such as "New techniques in advertising for emerging peoples", "How to sell visually and orally to people who cannot read or write", and "Print blazes a trail into the jungle" (49).

One speaker at that conference asked, "Does he [the international advertiser] know how to use and apply the powerful tools of modern advertising to penetrate those vast areas of emerging consumers, despite the barriers of illiteracy, tribal customs, religious prejudices and primitive beliefs? ...A version of the Peace Corps has been proposed as a possible solution to the advertising and marketing problems of developing countries. Teams of ad men, marketers, psychologists could be assembled and deployed to devise locally the tools required to raise standards of living and to introduce modern products and services"(50).

The kind of monitoring of infant food advertising mentioned above with respect to professional journals may not be feasible in a developing country. To a business man, as Professor Theodore Levitt points out in an article meant to be "helpful, and perhaps even refreshing" to its readers, "embellishment and distortion are among advertising's legitimate and socially desirable purposes." Levitt goes on to quote Galbraith: "The merest child watching television dismisses the health and status-giving claims of a breakfast cereal 'as a commercial'." (51) Unfortunately, populations in developing countries probably do not possess such sophistication. To a mother who can barely read, the printed word may assume almost scriptural authority. To a mother who is hearing radio for one of the first times, a simple-minded jingle about a baby food may be nearly hypnotic in its power. In fact, a study of foreign students studying in the U.S. found "a strong correlation between foreign students' levels of favorability toward American advertising and the stage of economic development in the students' home countries. The relationship was inverse: the higher the stage of economic development, the lower the level of favorability" (52).

The above information is gathered together in hopes that it will be of use to those concerned with the problem of commercial infant food advertising and promotion in developing countries. Its intent is mainly to provide background information for conducting the kind of local or national studies that may be necessary in most areas before deciding how bad the problem is and how best to cope with it.

Does advertising "cause" low-income mothers in developing countries to buy commercial infant foods? A fairly accurate answer might be obtained by watching the sales response of an isolated population to an isolated advertising campaign. Most large companies which advertise do carry out such market studies, but do not make results available.

However, we may assume that such statements as the following one from Nestle's 1963 Annual Report are backed by extensive research: "Despite the somewhat unfavorable economic situation in Latin America, intensive promotional and advertising efforts brought about a marked improvement in sales of our brands of milk products."

APPENDIX 1.

INFANT FOOD ADVERTISEMENTS FROM PUBLICATIONS IN DEVELOPING COUNTRIES DIRECTED TOWARD THE LAY PUBLIC

Copyrighted pages in Appendix 1 have been omitted.

APPENDIX 2.

INFANT FOOD ADVERTISEMENTS FROM JOURNALS FOR HEALTH PROFESSIONALS

Copyrighted pages in Appendix 2 have been omitted.

APPENDIX 3

WORLD MANUFACTURERS OF PROCESSED DAIRY PRODUCTS USED FOR INFANT FEEDING

ABBOTT LABORATORIES

Subsidiaries:

Ross Laboratories

Brand Names:

Similac, Isomil, Pedialyte, Advance

Types of Infant Food Products:

Soy and milk-based formulas

Most Active Sales Areas:

U.S.; International, by per cent: Europe/32%, Latin America/28%, Pacific and Far East/19%, Eastern Mediterranean, Africa/11%, Canada/11%

Address:

Ross Laboratories
Columbus, Ohio 43216

Abbott Laboratories
Abbott Park
N. Chicago, Illinois 60064

Miscellaneous:

In 1973, Abbott distributed products in about 160 countries, with 33 plants outside the U.S. Its fastest growing markets during the 1970's have been Africa and the Middle East.

Mr. David O. Cox, President of Ross, was cochairman of the 1973 PAG Pediatrician/Infant Food Industry Seminar.

Pediatric sales were up 17 percent. Sales of Advance were up 31%, Pedialyte up 46%. International sales were up 28% to $280 million. (1974)

"In most of Africa, midwives in government clinics specify Abbott products to expectant mothers. The largest single shipment from our Holland plant was an order placed by the Government of Zambia. Sales of infant formula products Similac and Isomil, in the Middle East and Africa more than doubled over 1973." (Annual Report, 1975)

Abbott has 22,829 employees and 21,565 stockholders (insiders control 1% of the stock).

In 1974, Abbott held 55% of the infant formula market. On March 13, 1975, Abbott, along with Bristol-Myers, was charged in federal court with monopolizing the infant formula market. (See Baker/Beech-Nut, page .)

AMERICAN HOME PRODUCTS

Subsidiaries:

Wyeth Laboratories

Brand Names:

SMA, S-26, Nursoy

Types of Infant Food Products:

Soy and milk-based formulas

Most Active Sales Areas:

U.S., ECC, Brazil, Mexico, Colombia, Canada, South Africa, Australia, Japan, Philippines

Address:

Wyeth Laboratories
P.O. Box 8299
Philadelphia, Pennsylvania 19101

American Home Products
685 Third Avenue
New York, New York 10017

Miscellaneous:

"Wyeth's worldwide sales and profits for 1973 marked their strongest annual gain in history...Operations progressed well in Latin America, and Wyeth's activities in Pakistan resumed an upward trend...Exports to the Middle East and Far Eastern markets increased substantially." (1973 Annual Report)

American Home Products employs 45,457 people and has 70,016 stockholders. Insiders control 1% of the stock.

"Earnings are fully taxed. Unlike most other drug companies, American Home has no production facilities in tax-free Puerto Rico." (Value Line, Feb. 28, 1975)

Prescription drugs division (includes infant foods) accounted for 38% of sales, but 55% of pretax earnings.

They spent $0.42 per share on research and development in 1973 and $1.06 per share on advertising.

BAKER LABORATORIES, INC.

Subsidiaries:

Baker/Beech-Nut Corp.

Brand Names:

Beech-Nut Baby Foods, used to market Baker's infant formula and Veramel formula

Products:

Strained baby food

Active Areas:

Mainly in the U.S.

Address:

Baker Laboratories, Inc.
2004 N. Beulah Avenue
P.O. Box 227
East Troy, Wisconsin 53120

Baker/Beech-Nut Corp.
460 Park Avenue
New York, New York 10022

Miscellaneous:

Baker is a private company and thus is not required by law to disclose financial information, as companies with stockholders are.

Baker used to have wide distribution of its infant formulas, and advertised widely in professional journals. In March, 1973, it bought Beech-Nut Baby Foods, which was having financial difficulties as part of Squibb Corp. Beech-Nut has a much smaller share of the baby food market than the other two U.S. companies, Gerber (65%) and Heinz (claims to sell even more than Gerber, worldwide). Beech-Nut sold $69 million worth of baby food in 1971.

In December, 1974, Baker went out of the infant formula business. On March 13, 1975, Baker brought suit in federal court in Philadelphia against Abbott and Bristol-Myers, charging that they monopolized the infant formula market, and seeking treble damages and a halt to alleged unfair competition:

"Baker has charged the two companies with paying cash grants to hospitals as well as supplying free infant formula in return for the hospital staff feeding newborns these brands and recommending that mothers continue using them at home. The suit also notes that the hospitals distribute promotional literature." (Advertising Age, March 17, 1975, page 8).

Baker is among two national companies and a number of regional ones that have been eliminated from the infant formula market by such practices, begun in 1969, according to the suit.

Baker Labs employs 35 people and Baker/Beech-Nut employs 1,099.

BORDEN

Subsidiaries:

Markets Syntex products overseas

Brand Names:

KLIM, Bremil, Eagle, Alea, Marsa, Biolac, Dryco (Some are no longer on the market.)

Types of Infant Food Products:

Powdered whole milk, formula, condensed milk, strained baby food; Syntex: soy-based formulas

Most Active Sales Areas:

U.S., Central and South America, Far East

Address:

Borden, Inc.
277 Park Avenue
New York, New York 10017

Miscellaneous:

KLIM (milk spelled backwards) is the principal Borden product sold internationally. It is a whole milk powder sold in more than 130 countries. As of 1973 sales of KLIM in Southeast Asia were at record levels above previous years.

Borden has 88 chemical and food plants in 27 countries and employs 46,500 people. Borden stock is held by 67,552 common shareholders, and returned 10% on equity in 1973.

Borden handles the marketing of Syntex human nutritional products outside of the U.S. and Canada on an exclusive licensing basis. (Personal communication, R. P. Cook, Product Manager for Syntex)

BRISTOL-MYERS

Subsidiaries:

Mead Johnson

Brand Names:

Enfamil, Sobee, Prosobee, Olac, Acidolac, Alacta, Dextri-Maltose, Lactum, Lofenalac, Nutramigen, Probana, Casec, Pablum, Pabena, Lonalac, Protein Milk, Bib (Some are no longer on the market.)

Types of Infant Food Products:

Milk and soy-based formulas, specialized formulas for infants with various diseases, carbohydrate modifier, infant cereals

Most Active Sales Areas:

Has subsidiaries in Latin America, Far East, South Africa, and Pakistan

Address:

Bristol-Myers Company
345 Park Avenue
New York, New York 10022

Mead Johnson Company
2400 W. Penn Street
Evansville, Indiana 47712

Miscellaneous:

About 40% of the total sales of Enfamil is outside the U.S. (1971 Annual Report)

"...our contact with the mother is most often through her physician in foreign countries. In some countries the 'Mothercraft' service is provided. Wherever this service is provided, it is with the sanction and advice of the local medical groups. Nurses engaged by the company to provide such services are truly educated, certified professional nurses." R. W. Drebus, V.P. International Division, BM, personal communication, Dec. 1974.

Bristol-Myers' International Division is its largest and fastest growing; its 1974 sales were up 20% over the 1973 figure of $325 million; 70% of its business is in pharmaceuticals (includes infant food products). International sales grew 12-18% per year during the last decade, compared with 7% for domestic. Advertising and product promotion expenses in 1974 totaled $296 million.

Bristol-Myers has 26,500 employees and 42,104 shareholders. Insiders control 2% of common.

In 1974 Bristol-Myers controlled 35% of the infant formula market. On March 13, 1975 it was charged in federal court with monopolizing the infant food market. (See Baker/Beech-Nut, page .)

Bristol-Myers spent almost three times as much on advertising as on research and development in 1973.

CARNATION

Subsidiaries:

Glueckskklee (Germany)--strained baby foods, evaporated milk

Brand Names:

Morning, Gloria, Gold Cross, Blue Cross, Peacock, Tower, Liberty, Red Seal

Products:

Evaporated milk, condensed milk, filled milk

Active Areas:

Has subsidiaries in Latin America, Far East, Africa

Address:

Carnation Company
5045 Wilshire Blvd.
Los Angeles, California 90036

Miscellaneous:

Carnation earnings were up 23% in 1974. Its stock returned 14.5% on equity (1973). The family of its president, D. C. Stuart, controls 50% of the shares. 7,780 stockholders share the rest.

Carnation employs 20,500 workers. (Value Line, March 14, 1975)

EAST ASIATIC COMPANY

Subsidiaries:

Dumex, Danish Condensed Milk Factory

Brand Names:

Dumex, Mamex, Plumrose

Products:

All types of processed milks, baby foods and formulas

Active Areas:

Markets infant foods in various areas throughout the world, although not in the U.S.

Address:

East Asiatic Company, Limited
2 Holbergsgade
Copenhagen K, Denmark DK-1099

FOREMOST-McKESSON

Subsidiaries:

Foremost

Brand Names:

Foremost, Golden State

Products:

Sweetened condensed milk, powdered whole milk, infant foods

Active Areas:

Latin America, Far East, in addition to dairy products in the U.S.

Address:

Foremost-McKesson, Inc.
Crocker Plaza
One Post Street
San Francisco, California 94104

Miscellaneous:

Foremost-McKesson has 17,100 employees and 53,000 stockholders. Insiders own 1% of common. (Value Line, March 7, 1975) Its stock returned 13% on equity in 1973.

GERBER

Brand Names:

Gerber, Modilac, MBF (meat-based formula)

Products:

Strained baby foods, infant cereals, formulas, teething biscuits

Active Areas:

Europe, Latin America, Africa, Philippines, Japan

Address:

Gerber Products Company
445 State Street
Fremont, Michigan 49412

Miscellaneous:

Gerber products are exported to over 80 countries through subsidiaries and licensing agreements and export distributorships (N. Purcell, Export Supervisor, personal communication, November, 1974). It has plants in 6 states and Canada; employs 6,977 workers, and has 13,118 stockholders. Insiders own 30% of common.

Gerber controls 65% of the baby food market in America (Business Week, July 13, 1974, p. 44) It makes and packs 200 varieties of baby food.

"The birth-rate fallout has hit Gerber much harder than a quick look at its earning shows. Foreign sales of baby food accounted for 35% of its earnings last year--up from 23% the year before. And foreign markets (more lucrative than the American) should continue to be a strong growth area for the company." (Financial World, June 19, 1974, p. 15.)

"We think that the Gerber name and the Gerber baby have developed over such a long period of time that that gives us great strength. So does the sales force that we have--I guess we're somewhere now around 1,100 men--and our advertising and direct mail program. ...it's quite wasteful when you start advertising in the whole spectrum. I think we're better off in the baby magazines, and so on, because I think that's where we're hitting the real possible consumer...We advertise less today than we did six or seven years ago...We may go heavier on direct mail, with less media...if September births are up, what does that mean to us, when? It means that within three or four weeks you should see some cereal increases...As I said earlier, we adopted a rather simple philosophy to sell more dollars of merchandise to a fewer number of babies, and this we are accomplishing." (John Snerth, Board Chairman of Gerber, Advertising Age 46: 29, February 3, 1975)

Glass containers represent "40% to 45% of total food product costs." (Value Line, March 14, 1975)

GLAXO

Subsidiaries:

Farley's

Brand Names:

Ostermilk, Farley's, Farex, Complan, Britannia

Products:

Formulas, baby foods and cereals and biscuits

Active Areas:

Great Britain, 39%; Europe, 26%; Asia, 16%; the Americas, 9%; Africa, 6%; Australasia, 4%

Address:

Glaxo Group Limited
Charges House
6-12 Charges Street
London W1Y 8DH

Miscellaneous:

Glaxo has 13 subsidiaries and associate companies in the United Kingdom, 43 in rest of world, including 28 in developing countries (1974 Annual Report). Glaxo has about 30,000 employees.

H. J. HEINZ COMPANY

Subsidiaries:

Societa del Plasmon (Italy)

Brand Names:

Mineplasmon, Primoris, Aliplasmon, Biscotto, Pastine, Semolino, Ergoplasmon, Bifetta, Farine, Crema di Riso, Omogeneizzati David

Products:

Strained baby foods, infant cereals

Active Areas:

Worldwide

Address:

H. J. Heinz Company
P.O. Box 57
Pittsburgh, Pennsylvania 15230

Miscellaneous:

In 1973, Heinz spent $2.5 million advertising baby foods in Great Britain. It has 95 varieties there. (Promoting for Profit, April 28, 1973)

"Even in areas where convenience foods for adults are not a regular part of the menu, packaged baby foods are being used to give infants a good start." ("It's a World-Wide 57" 1963, pamphlet published by Heinz.)

"The year's outstanding marketing event was the climax of a 21-month campaign to relaunch baby foods in cans. The year ended with Heinz's market share standing at 74% (on a worldwide basis, Heinz sells more baby food than any of its competitors.)" (Annual Report, 1974)

Heinz has plants in the U.S. and 14 foreign countries. It markets 1,200 products in 150 countries. It has 35,000 employees and 10,304 stockholders. Insiders control 37% of common stock. (Value Line, March 14, 1975)

MONTEDISON

Subsidiaries:

Caro Erba, Farmitalia, Altimont

Brand Names:

Dodelac, Auxolac

Products:

Strained baby foods, cereals

Active Areas:

Italy

Address:

Montedison
Foro Bonaparte 31
Milan, Italy

Miscellaneous:

Montedison is an enormous Italian conglomerate. It has shown few profits in recent years, reportedly due to corruption among higher-ups. Much of its stock is held by the Italian government. A syndicate was formed to counterbalance this, and holds 36% of its stock. A "mystery man" holds 11% of it. (Economist 252: 119, September 21, 1974)

Montedison has 181,000 employees in 907 subsidiary companies. It secured 10% of the Italian pharmaceutical market by acquiring full control of Farmitalia and Carlo Erba. (Business Europe 12(7): 49, February 18, 1972)

NESTLE

Subsidiaries:

Allgaeuer Alpenmilk AG and its subs., Alete; Ursina-Franck and its subsidiary, Guigoz.
Unilac, Tongala, (Libby, McNeill, which used to make baby foods and processed milks), L.E. Bruun, Findus

Brand Names: (Some are obsolete)

al 110	Alete	Arobon	Bear
Beba	Bruun	Cailler	Cerelac
Claudel	Codan	Dancow	Dextrogen
Eledon	Farine Lactee	Florigoz	Fortifex
Gluco-B	Guigolac	Guigoz	Hylac
Ideal	Inca	Kathreiner	Kohler
Lactogen	Locatelli	Maltogen	Milchmaedchen
Milkmaid	Milo	Molenaar	Mont Blanc
Nadina	Nan	Nativa	Nesmida
Nespray	Nessucar	Nestargel	Nestogen
Nestomalt	Nestum, Nidal	Nidex	Nidine
Nido	Pelargon	Peter	Prodieton
Protilac	Sarotti	Semilko	Seremil
Sinlac	Soldor	Thomi	Ursa

Products:

All types of infant food

Active Areas:

Nestle sells infant foods almost everywhere except the U.S., Canada, and a few Asian countries which apparently no longer trade with it such as Burma and Sri Lanka. Europe (49%), Latin America (35%), Asia and Oceania (11%), Africa (4%).

Address:

Nestle Alimentana
Vevey, Switzerland

Miscellaneous:

"Its broad geographical and product diversification, its involvement with the population explosion in backward countries, where it makes cheap baby food, and, finally, the fact that it keeps its cash in solid Swiss francs make Nestle shares good insurance against depression, inflation, or revolution." (Barrons 48: 9, May 20, 1968. "War on Hunger" by Neil McInnes) "While only 12% of its assets are located in backward countries, they account for over 20% of sales." Declared profits are badly understated.

Business Week, February 27, 1971, p. 54, "A merger breeds fears of monopoly": Nestle's dietetic milk products controls 75% of the French market, 55% of the Swiss, and 30% of the German (75% of condensed milk sales).

Business Week, January 27, 1973, p. 44, "How Nestle revives its money losers": Nestle is running neck and neck with the Netherlands' Unilever as the world's biggest food company.

Forbes 106: 24, October 1, 1970: "The Secret Giant": Nestle is third in packaged foods behind Unilever and Kraftco.

Director 22: 96, October, 1969: "The full cream life of the Nestle Man": Nestle began operating in Latin America in 1920. It contributes to the development of local dairying. Brazil, Mexico, and Nicaragua requested it to increase its activities there.

World Coffee and Tea, February, 1975: Nestle has food plants in about 70 countries, employing nearly 90,000 people. It is ranked 12th on Fortune Magazine's list of the 300 largest foreign companies for 1973. The U.S. FTC claims Nestle paid $105 million in cash for the purchase of the Stouffer Corporation.

Nestle Mother Book, 1932, p. 13: "Diet for the Mother. Nourishing food should be taken at meal times, both before and after baby is born. Full strength "Lactogen" or "Vi-Lactogen", eggs, meat, green vegetables, etc. Plenty of water should be taken during the day, a glassful being taken before each suckling.

"A glass of warm "Lactogen" or "Vi-Lactogen" taken two or three times daily will materially assist the flow of milk...These two excellent foods contain the same constituents as baby receives from the breast and for this reason they are invaluable to the nursing mother...A well-known medical practitioner recently stated that he had 'used "Lactogen" for years for nursing mothers and found it the best thing ever given to help the breast milk.' This is why "Lactogen" is so generally recommended for mothers nursing their babies."

Nestle Annual Report, 1971, p. 25: "Generally speaking, sales developed satisfactorily. In Europe, progress was slowed down by a certain stagnation in the market due, inter alia, to the continuously declining birthrate. In the developing countries, demographic growth, the rising standard of living and, generally, the endeavours to promote infant nutrition, offer good prospects for our products."

Annual Report, 1973, p. 10: "Regular growth is necessary to insure the long term prosperity of the company. This growth has been provided in recent years:--by development of sales of existing products and their geographical extension--by the launching of new products--by penetration into new areas of activity. These efforts were actively pursued in 1973..."

The photographs on this page and the next come from Nestle's Centenary Publication (Jean Heer, World Events 1866-1966, The First Hundred Years of Nestle; 1966). The publication was printed in French, German, English, and Spanish.

The photographs originally appeared in color. They were kindly supplied to us by Arbeitsgruppe Dritte Welt (Third World Group), Postfach 1007, CH-3001 Bern, Switzerland. This group is an information and action group which translated The Baby Killer (ref. 27) into German in June 1974. The title was translated to "Nestle toetet Babys", which means "Nestle kills babies".

In July 1974, Nestle brought suit against the group for libel. The court proceedings are expected to begin sometime in the summer of 1975.

The group intends to defend itself by establishing a clear cause and effect chain from bottle feeding in poor communities to malnutrition and death, and that Nestle's advertising has played a significant role in the switch to the bottle.

The original English version of The Baby Killer may be obtained from the address in reference 27 for 35 pence, and the group's translation may be obtained from the above address for Swissfrancs 3,50.

Illustration Number 69: "... Or sometimes, as in Bangkok, it is the shop that comes to the consumer, exhibiting in a thousand and one ways the articles they have for sale."

Ill. No. 72: "Family celebrations - in our picture, a baptism - frequently offer an opportunity for welcome presents."

Ill. No. 74: "Through the use of pictures, practical advice on hygiene and infant feeding is given to mothers in parts of the globe that are far removed from those paradises we call day-nurseries."

PET, INC.

Brand Names:

Pet

Products:

Evaporated milk

Active Areas:

Latin America, U.S.

Address:

Pet, Incorporated
Pet Plaza
400 South Fourth Street
St. Louis, Missouri 63166

Miscellaneous:

Pet has over 17,700 employees and 18,893 shareholders. Insiders indirectly control about 50% of common stock.

RECKITT & COLEMAN, LTD.

Subsidiaries:

Robinson

Brand Names:

Robinson, Purity, Fortris

Products:

Patent barley, strained baby foods, infant cereals

Active Areas:

Sales/profit: U.K. (26/30.7), Continental Europe (15.7/5.3), North America (22.2/14.6), Australasia (16.5/20.7), Africa (9.6/18.2), Latin America (6.8/7.7), Asia (3.2/2.8)

Notice the particularly high profit in Africa. Apparently baby foods are sold only in the U.K., Africa, Latin America and Asia.

Address:

Reckitt & Coleman, Ltd.
P. O. Box 26, Burlington Lanes
Chiswick, London W4 2RW

Miscellaneous:

Established joint ventures with Gerber in 1972 in Brazil and Argentina.

SANDOZ, LTD.

Subsidiaries:

Dr. A. Wander, Ltd.

Brand Names:

Elacto, Veguvit, Ceral

Products:

Strained baby foods, cereals, milks

Active Areas:

Europe (55%), U.S. & Canada (21%), Asia (11%), Latin America (9%), Africa & Australia (4%)

Address:

Agro/Food Division
Sandoz, Ltd.
CH-4002, Basel
Switzerland

Miscellaneous:

"Of the many products in our extensive range some of the most successful were the baby foods and the slimming lines." (Annual Report, 1973)

SYNTEX CORPORATION

Subsidiaries:

Syntex Laboratories, Inc.

Brand Names:

Mull Soy, Nes-Mull Soy, Cho-Free

Products:

Soy-based formulas

Active Areas:

U.S. (56%), Europe (23%), Latin America (10%), Other (11%)

Address:

Syntex Corp.
P. O. Box 7386
Panama City 5, Panama

Syntex Laboratories, Inc.
3401 Hillview Avenue
Palo Alto, California 94304

Miscellaneous:

Syntex is a U.S. owned corporation headquartered in Panama. Borden, Inc. handles the marketing of its formulas outside of the U.S. and Canada on an exclusive licensing basis.

Syntex has 6,144 employees and 20,600 stockholders. Allen & Co. used to own 30% of the stock, but now owns only 10%. In 1974 sales were up 36% and profits were up 51%.

Syntex has purchased the Borden Pharmaceutical Division, which formerly marketed Bremil and other infant formulas.

UNIGATE

Subsidiaries:

Cow & Gate, Altimonte Dairy Products, Dominion Dry Milk Ltd.

Brand Names:

Cow & Gate, Trufood, Carobel, St. Ivel, Farmer's Wife

Products:

Various processed milks, various baby foods and formulas

Active Areas:

Europe, Oceania, Canada, Africa

Address:

International Division
Unigate House
Western Avenue
London W3 OSU

Miscellaneous:

"We are continuing to make progress with infant foods both in the markets previously supplied and in new ones. There seems to be no shortage of babies round the world and we want to help them to grow healthy." (Annual Report, 1971, p. 5)

WESSANEN

Subsidiaries:

Lijempf, Bebelac EPE, Sabelac SA, Van Heel's, Hollandse Blikmelk

Products:

Condensed milk, sterilized milk, milk powder, baby foods

Active Areas:

Europe, Asia

Address:

Wessanen
Lacto Division
Jan Luykenstraat 98
Amsterdam 1007, Holland

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